

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Jeff EDER

Serial No.: 10/645,099

Filed: August 21, 2003

For: AN AUTOMATED METHOD OF AND SYSTEM FOR IDENTIFYING, MEASURING AND  
ENHANCING CATEGORIES OF VALUE FOR A VALUE CHAIN

Group Art Unit: 3692

Examiner: Clement Graham

**Supplemental Brief on Appeal**

Sir or Madam:

The Appellant respectfully appeals the rejection of claim 25, claim 26, claim 27, claim 28, claim 29, claim 30, claim 31, claim 32, claim 33, claim 34, claim 35, claim 36, claim 37, claim 38, claim 39 and claim 40 in the January 9, 2008 Office Action for the above referenced application. The Table of Contents is on page 2 of this paper. This supplemental brief adds a declaration that was inadvertently omitted from the originally filed brief.

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### **1. Real party in interest**

Asset Reliance, Inc. (dba Asset Trust, Inc.) is the Appellant and the owner of 100% interest in the above referenced patent application.

### **2. Related appeals**

An Appeal for U.S. Patent Application 09/764,068 filed on January 19, 2001 may be affected by or have a bearing on this appeal. An Appeal for U.S. Patent Application 09/940,450 filed on August 29, 2001 may be affected by or have a bearing on this appeal. An appeal for U.S. Patent Application 10/746,673 filed December 24, 2003 may be affected or have a bearing on this appeal.

### **3. Status of Claims**

Claims 25 – 40 are pending and are the subject of this appeal. Claims 49 – 61 are amended. No other claims are pending. Claims 1 – 24 and 41 - 48 were previously cancelled without prejudice.

### **4. Status of Amendments**

An Amendment/Reply that included an amendment to claims 49 – 61 was submitted on June 6, 2008. The amended claims are not a subject of this appeal.

### **5. Summary of Claimed Subject Matter**

One embodiment of an automated method of and system for identifying, measuring and enhancing categories of value for a value chain is best depicted in Figure 1 – 10 of the specification. Figure 1 gives an overview of the major processing steps which include preparing data for use in processing, analyzing the data using independent components of software, evaluating market sentiment, generating reports and generating value improvements.

**Independent Claim 25** - A first embodiment of the system for identifying, measuring and enhancing categories of value for a value chain is exemplified in independent claim 25 where a method integrates data from organization transaction databases, uses part of the data to develop a model that identifies a net contribution of one or more elements of value to an organization share price by a category of value and create tools for organization financial management including: category of value models, component of value models, market value models, network models, optimization models, segmentation models, simulation models, value chain models, management reports, lists of changes that will optimize one or more aspects of organization financial performance and a system for automated trading of an organization equity security based on a

market sentiment value.

The acquisition of data begins by defining the enterprise using the system settings table as described in FIG. 5A reference number 202 and line 16, page 27; though line 2, page 29. The metadata mapping and conversion information that will be used to guide the extraction of data from each database is then established as described in FIG. 5A reference numbers 203 and line 4, page 29 through line 9, page 30 of the specification. After the metadata mapping and conversion information is established for each database, data from each database are extracted converted and stored in the application database for use in analysis. The extraction, conversion and storage of data from the basic financial system database in accordance with the established metadata mapping specification is described in FIG 5A, reference numbers 207, 208, 209 and 211 and line 17, page 30 through line 32, page 31 of the specification. The extraction, conversion and storage of data from operation management system in accordance with the established metadata mapping specification is described in FIG 5B, reference numbers 221, 222, 209 and 211 and line 3, page 32 through line 32, page 32 of the specification. The extraction, conversion and storage of data from a human resource management system in accordance with the established metadata mapping specification is described in FIG 5B, reference numbers 225, 226, 209 and 211 and line 5, page 33 through line 32, page 33 of the specification. The extraction, conversion and storage of data from external databases in accordance with the established metadata mapping specification is described in FIG 5C, reference numbers 241, 242, 209 and 211 and line 7, page 34 through line 33, page 34 of the specification. The extraction, conversion and storage of data from an advanced finance system in accordance with the established metadata mapping specification is described in FIG 5C, reference numbers 245, 246, 209 and 211 and line 7, page 35 through line 33, page 35 of the specification. The extraction, conversion and storage of data from soft asset management systems in accordance with the established metadata mapping specification is described in FIG 5D, reference numbers 261, 262, 209 and 211 and line 7, page 36 through line 3, page 37 of the specification. The extraction, conversion and storage of data from the internet in accordance with the established metadata mapping specification is described in FIG 5D, reference numbers 266, 267, 268 and 269 and line 19, page 37 through line 31, page 38 of the specification. Internet data are obtained after the user (20) establishes keywords as described in FIG. 5D, reference number 265 and line 10, page 37 and line 18, page 37 of the specification. Text data and geospatial measures are extracted and stored in the integrated database as described in FIG 5D, reference numbers 268, 269 and 271, FIG. 5E, reference numbers 277, 278, 279, 280, 281 and 282 and line 32, page 38 through line 33, page 41 of the specification. The stored data are then processed to

identify and locate missing data, as described in FIG. 5F reference number 291 and 292 and line 1, page 42 through line 17, page 42 of the specification.

After data are aggregated, converted and stored as described in the preceding paragraphs, item performance indicators and composite variables are generated using the procedure described in FIG. 5F, reference numbers 293, 294, 295 and 296 and line 18, page 42 through line 23, page 43 of the specification.

The item performance indicators and composite variables are then used to develop models of the current operation category of value by component of value (revenue, expense or capital change), the real option category of value, and the market sentiment category of value. In the first phase of this processing, the item performance indicators and composite variables created in the prior stage of processing are used to develop a summary of element of value contribution to each of the components of current operation value (revenue, expense or capital change) for each enterprise. As part of this processing the causal item performance indicators and composite variables (collectively, causal factors) are identified and are used exclusively in building the vectors that summarize the performance of each element of value. This phase of processing is described in FIG. 6A reference numbers 301 - 310, FIG. 6B reference numbers 321 and line 1, page 44 through line 8, page 51 of the specification.

In the second phase of the organization share price by category of value model development processing, an estimate of the similarity of each real option to the current business operation is developed by comparing the element of value impact profile of the current operation to the expected profile of each real option. The estimate is then used to develop a cost of capital multiplier. The closer the element of value profile of the option is to the element of value profile of current operation, the closer the multiplier is to 1. The estimate may be made by the user or by pattern matching algorithms. The estimate is then combined with the enterprise cost of capital (determined in a manner that is well known) to develop a discount rate for each real option. The discount rate is combined with previously stored information regarding each real option in order to calculate the value of the real options. This phase of processing is described in FIG. 6B reference numbers 326, 327 and 328 and line 9, page 51 through line 30, page 52 of the specification.

In the third and final phase of the organization share price by category of value model development processing, a model of the contribution of elements of value to enterprise market sentiment value is developed. The first phase in this part of the process involves calculating the value of market sentiment by combining the results of prior analyses in accordance with the

equation shown in Table 35 on page 61. A series of predictive models are then used to identify the relationship between the item performance indicators and composite variables identified in the first phase of this processing with the value of market sentiment. The relationships from the best fit model are then used to calculate the contribution of each element of value to a market sentiment value in a manner similar to that used for identifying element of value contribution to the components of value. This portion of the processing is described in FIG. 7 reference numbers 404, 405, 410, 411, 413, 414 and 415 and line 1, page 61 through line 35, page 65 of the specification.

The development and use of category of value models is described in FIG. 6A reference numbers 301 - 310, FIG. 6B reference numbers 321, 326 – 328, 330 and 331, FIG. 6C reference numbers 341 – 342, 345 - 350 and line 1, page 44 through line 15, page 65. The development and use of mode for a real option category of value is described in FIG. 6B reference numbers 326, 327 and 328 and line 9, page 51 through line 30, page 52 of the specification. The development and use of a model for a current operation category of value is described in FIG. 6A reference numbers 301 - 310, FIG. 6B reference numbers 321, 326 – 328, 330 and 331, FIG. 6C reference numbers 341 – 342, 345 - 350 and line 1, page 44 through line 15, page 65.

The development and use of a market value model is described in FIG. 6A reference numbers 301 - 310, FIG. 6B reference numbers 321 and line 1, page 44 through line 8, page 51 of the specification.

The evolution of network models for revenue is described in a variety of places including, FIG. 8A reference numbers 501 – 504, 525, 530, 535, 540, 545 and 550, FIG. 9 and line 5, page 44 through line 30, page 49 in the specification of cross referenced patent application 09/761,670. The evolution of network models for expense is described in FIG. 8B reference numbers 505, 507 and 508, 525, 530, 535, 540, 545 and 550, FIG. 9 and in line 31, page 49 through line 17, page 50 in the specification of cross referenced patent application 09/761,670. 09/761,670 also describes the development of network models for cash flow/market value and capital change.

The development and use of optimization models is described in a variety of places including FIG. 15 reference numbers 854, 855, 856 and 857 and line 9, page 73 through line 24, page 75 of the specification in cross referenced application 09/761,671.

The development and use of segmentation models is described in a variety of places including FIG 6A, reference number 304 and line 10, page 45 through line 18, page 45 of the specification.

The development and use of simulation models is described in a variety of places including FIG. 15 reference numbers 854, 855, 856 and 857 and line 9, page 73 through line 24, page 75 of the specification in cross referenced application 09/761,671.

The development and use of value chain models is described in FIG. 1 – 10 and line 10, page 2 through line 8, page 74 of the specification.

The development and use of management reports is described in a variety of places including FIG 8, reference numbers 505 and 705, FIG. 9 reference numbers 610 and 708, line 8, page 66 through line 11, page 69 and line 30, page 72 through line 24, page 73 of the specification.

The development use of a list of changes that will optimize one or more aspects of organization financial performance is described in a variety of places including FIG. 9 reference numbers 605 and 707 and line 12, page 72 through line 14, page 73 of the specification.

The development and use of a system for automated trading of an organization equity security based on a market sentiment value is described in FIG. 8 reference numbers 511, 512 and 706 and line 1, page 70 through line 17, page 70 of the specification.

#### Dependent claims

The limitations and activities associated with dependent claim 26 are described in a number of places including table 3, page 10 and line 20, page 26 through line 26, page 26 of the specification.

The limitations and activities associated with dependent claim 27 are described in FIG. 6A reference numbers 301 - 310, FIG. 6B reference numbers 321 and line 1, page 44 through line 8, page 51 of the specification.

The limitations and activities associated with dependent claim 28 are described in a number of places including table 3, page 10 and line 20, page 26 through line 26, page 26 of the specification. Optimization of components of value is described in FIG. 15 reference numbers 854, 855, 856 and 857 and line 9, page 73 through line 24, page 75 of the specification in cross referenced application 09/761,671. The identification of value enhancing changes by element of value is described in FIG. 9 reference number 604 and line 1, page 71 through line 11, page 72 of the specification.



The limitations and activities associated with dependent claim 29 are described in a number of places including line 10, page 58, through line 33, page 58 of the specification.

The limitations and activities associated with dependent claim 30 are described in a number of places. For example, identifying and analyzing value driver change impact is described in FIG. 9 reference numbers 603, 604, 605 and 610 and line 30, page 70 through line 15, page 73 of the specification. Organization market and share price reporting is described in FIG 8, reference numbers 504 and 505 and line 22, page 66 through line 11, page 69 of the specification. The identification of a price point is described FIG. 8 reference numbers 510, 511 and 512 and line 25, page 69 through line 17, page 70 of the specification.

The limitations and activities associated with dependent claim 31 are described in a number of places including FIG. 1, reference numbers 5, 10, 15, 25, 30 and 40, line 18, page 21 through line through line 20, page 21 and line 20, page 26 through line 26, page 26 of the specification.

The limitations and activities associated with dependent claim 32 are described in a number of places including line 23 of page 18 in the specification for cross referenced application 09/761,671.

**Independent Claim 33** - A second embodiment of the system for identifying, measuring and enhancing categories of value for a value chain is exemplified in independent claim 33 where an article of manufacture instructs a processor in a computer system to: integrate data from organization transaction databases in accordance with a common schema, analyze the data to identify data that are associated with one or more aspects of financial performance, and generate cluster models that identify a plurality of segments for each category of value, component of value, element of value, market value factors and combinations thereof

The acquisition of data begins by defining the enterprise using the system settings table as described in FIG. 5A reference number 202 and line 16, page 27; though line 2, page 29. The enterprise definitions define the different segments for each category of value. The metadata mapping and conversion information that will be used to guide the extraction of data from each database is then established as described in FIG. 5A reference numbers 203 and line 4, page 29 through line 9, page 30 of the specification. After the metadata mapping and conversion information is established for each database, data from each database are extracted converted and stored in the application database for use in analysis. The extraction, conversion and storage of data from the basic financial system database in accordance with the established metadata mapping specification is described in FIG 5A, reference numbers 207, 208, 209 and 211 and line 17, page 30 through line 32, page 31 of the specification. The extraction, conversion and storage



of data from operation management system in accordance with the established metadata mapping specification is described in FIG 5B, reference numbers 221, 222, 209 and 211 and line 3, page 32 through line 32, page 32 of the specification. The extraction, conversion and storage of data from a human resource management system in accordance with the established metadata mapping specification is described in FIG 5B, reference numbers 225, 226, 209 and 211 and line 5, page 33 through line 32, page 33 of the specification. The extraction, conversion and storage of data from external databases in accordance with the established metadata mapping specification is described in FIG 5C, reference numbers 241, 242, 209 and 211 and line 7, page 34 through line 33, page 34 of the specification. The extraction, conversion and storage of data from an advanced finance system in accordance with the established metadata mapping specification is described in FIG 5C, reference numbers 245, 246, 209 and 211 and line 7, page 35 through line 33, page 35 of the specification. The extraction, conversion and storage of data from soft asset management systems in accordance with the established metadata mapping specification is described in FIG 5D, reference numbers 261, 262, 209 and 211 and line 7, page 36 through line 3, page 37 of the specification. The extraction, conversion and storage of data from the internet in accordance with the established metadata mapping specification is described in FIG 5D, reference numbers 266, 267, 268 and 269 and line 19, page 37 through line 31, page 38 of the specification. Internet data are obtained after the user (20) establishes keywords as described in FIG. 5D, reference number 265 and line 10, page 37 and line 18, page 37 of the specification. Text data and geospatial measures are extracted and stored in the integrated database as described in FIG 5D, reference numbers 268, 269 and 271, FIG. 5E, reference numbers 277, 278, 279, 280, 281 and 282 and line 32, page 38 through line 33, page 41 of the specification. The stored data are then processed to identify and locate missing data, as described in FIG. 5F reference number 291 and 292 and line 1, page 42 through line 17, page 42 of the specification.

Clustering for the components of value (revenue, expense, capital change) involves the use of unsupervised "Kohonen" neural network, K-nearest neighbor, Expectation Maximization (EM) and/or the segmental K-means clustering algorithms to identify clusters for possible use in a separate analysis. For example, the clustering analysis for revenue component of value identifies different customer groups (i.e. regular customers, occasional customers, service only customers, etc.). This phase of the processing is described in FIG. 6A reference numbers 304 and in line 10, page 45 through line 8, page 46 of the specification.

Clustering for elements of value involves the use of an unsupervised Kohonen network to identify the number of distinct sub-elements of value that are present within an element of value.

These distinct sub-elements of value may be used for separate analysis during model development. This phase of processing is described in a number of places including FIG. 6, reference number 309 and line 6, page 37 through line 6, page 40 of cross referenced application 09/761,670.

Clustering for the factor or factors that best define market value involves the use of temporal clustering to identify distinct regimes in the data. These distinct regimes may be used for separate analysis during model development. This phase of processing is described in a number of places including FIG. 6B, reference number 327 and line 5, page 50 through line 15, page 51 of cross referenced application 10/441,385.

#### Dependent claims

The limitations and activities associated with dependent claim 34 are described in a number of places including FIG. 6, reference number 309 and line 6, page 37 through line 6, page 40 of cross referenced application 09/761,670.

The limitations and activities associated with dependent claim 35 are described in a number of places including FIG. 6A reference numbers 301 - 310, FIG. 6B reference numbers 321, 326 - 328, 330 and 331, FIG. 6C reference numbers 341 - 342, 345 - 350 and line 1, page 44 through line 15, page 65 of the specification.

The limitations and activities associated with dependent claim 36 are described in a number of places including line 10, page 12 of the specification.

The limitations and activities associated with dependent claim 37 are described in a number of places including FIG. 8A, reference number 525 and line 6, page 47, through line 6, page 49 of the specification of cross referenced application 09/761,670.

The limitations and activities associated with dependent claim 38 are described in a number of places including FIG. 5F, reference number 294, line 1, page 43 through line 12, page 43 of the specification, FIG. 6A, reference number 307, line 3, page 49 through line 6, page 49 of the specification, FIG. 6C reference number 347 and line 21, page 57 through line 28, page 58 of the specification.

The limitations and activities associated with dependent claim 39 are described in a number of places including table 3, page 10 and line 20, page 26 through line 26, page 26 of the specification.

The limitations and activities associated with dependent claim 40 are described in a number of places including in FIG. 6A reference numbers 304 and in line 10, page 45 through line 8, page 46

of the specification.

The table shown below provides an overview of the processing steps that are used to develop the market sentiment and component of current operation value models.

Summary of 10/645,099	Summary of 7,283,982 filed in 2003
1. Transform raw data into indicators using pre-programmed functions and Linus/AQ algorithms	1. Use <u>any</u> technique to derive a basic model
2. Develop an initial model using the raw and transformed data as inputs by: a) creating parallel models using different specified algorithms, and b) using <b>stepwise regression</b> to identify the best set of input variables for the models for each algorithm type	2. Develop an initial model by: a) deriving features from the input to the basic model using <u>any</u> current transform regression algorithm , and b) using <b>stepwise regression</b> to select the input features for the initial regression model
3. Refine the variable selection from 2b) and then <u>transform</u> the resulting set of input variables into summaries using different specified algorithms	3. Complete a non-linear <u>transformation</u> of an explanatory input feature(s) from the initial model
	4. Use the transformed input features to create a new linear regression model
4. Use the best summary of transformed input data from 3 to create a <u>final model</u>	5. Combine the output of the new linear regression model with the output of the initial model and use the sum to provide a <u>final model</u> for the current iteration
	6. Repeat steps 3 through 5 indefinitely

As detailed in the summary of claimed subject matter and the specification, the method summarized above automatically makes adjustments to the schema as required to produce accurate impact measures and valuations for the elements of value.

## **6. Grounds of rejection to be reviewed on appeal**

**Issue 1** - Whether claim 25, claim 26, claim 27, claim 28, claim 29, claim 30, claim 31 and claim 32 are patentable under 35 USC 103(a) over U.S. Patent 5,991,758 (hereinafter, Ellard) in view of U.S. Patent 5,999,908 (hereinafter, Abelow) and U.S. Patent 4,989,141 (hereinafter, Lyons)?

**Issue 2** - Whether claim 33, claim 34, claim 35, claim 36, claim 37, claim 38, claim 39 and/or claim 40 are patentable under 35 USC 103(a) over Ellard in view of Abelow and Lyons?

**Issue 3** - Whether the invention described in claim 25 and claim 33 represents patentable subject matter under 35 USC 101?

**Issue 4** - Whether claim 25 and claim 33 are indefinite under 35 USC 112, second paragraph?

## **7. The Argument**

### **Grouping of Claims**

For each ground of rejection which Appellant contests herein which applies to more than one claim, such additional claims, to the extent separately identified and argued below, do not stand and fall together.

**Issue 1** - Whether claim 25, claim 26, claim 27, claim 28, claim 29, claim 30, claim 31 and claim 32 are patentable under 35 USC 103(a) over U.S. Patent 5,991,758 (hereinafter, Ellard) in view of U.S. Patent 5,999,908 (hereinafter, Abelow) and U.S. Patent 4,989,141 (hereinafter, Lyons)?

In the January 9, 2008 Office Action for the above referenced application, claim 25, claim 26, claim 27, claim 28, claim 29, claim 30, claim 31 and claim 32 are rejected under §103(a) as being obvious given Ellard in view of Abelow and Lyons. The Examiner has cited the Ellard, Abelow and Lyons documents as references. The Appellant respectfully traverses the rejections for obviousness in two ways. First, by noting that the rejections fail under both standards of the APA. Second, by noting that the argument used to support the claim rejections fails to establish a prima facie case of anticipation for the rejected claims. More specifically, the 9 January 2008 Office Action containing the claim rejections fails to establish a prima facie case of obviousness in a number of ways for every rejected claim as detailed below.

**Reason # 1** – The first reason that claim 25, claim 26, claim 27, claim 28, claim 29, claim 30, claim 31 and claim 32 are patentable is that the cited combination fails to establish a prima facie case of obviousness because it teaches away from a number of claimed methods. MPEP § 2141.02 states that: *“in determining the difference between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious but whether the claimed invention as a whole would have been obvious (Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983)).”* Furthermore, it is well established that: *A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).* Examples of the cited documents and other documents previously cited by the Examiner teaching away from the claimed invention, alone or in combination, include:

1) Claim 25 summarizes the use of a detailed model of organization shareholder value to identify the best method for managing all aspects of organization operations. Abelow teaches away from the claimed method by teaching the development and use of a Customer Based Product Design (CBPD) System to identify the best method for managing new product sales and marketing.

2) Claim 25 summarizes reliance on the integration of data in accordance with a common schema. Ellard teaches away from this approach by teaching the integration of data in accordance with a master item index (Ellard, FIG. 1 and C2, L 40, also see Evidence Appendix, pages 42 to 45). An item index is not a schema (note: “entity” as defined by Ellard is the equivalent of an “item” as defined in the specification).

3) Claims 25 teaches the development of a model that identifies a net contribution of one or more elements of value to an organization share price by a category of value using data integrated in accordance with a common schema and a plurality of tools including one or more category of value models and a system for automated trading of an organization equity security based on a market sentiment value. Lyons teaches away from this approach in several ways:

a) by teaching and relying exclusively on the use of financial statement data. As is well known to those of average skill in the art, the financial statements used by Lyons:

1. exclude almost all of the elements of value as identified in the specification for the above referenced application,
2. exclude the real option and market sentiment categories of value while failing to fully account for the current operation category of value, and

3. rely on the lower of historical cost or market value for reported asset values instead of market value impact; and
- b) by storing financial statement data in an unconventional manner that is designed to support spreadsheets and four dimensional data analysis (Lyons, C1, L 20 – C2, L 66; C20, L62 – C21, L2). In particular, Lyons teaches storage of data in accordance with patterns related to a SEPT value (the “S” in SEPT is for schedule). A plurality of these patterns are developed and controlled by end users. These teachings lead away from claim 25 which teaches reliance on data integration in accordance with a common schema.
- 4) Claim 26 describes specific elements of value which are not included in the financial statements Lyons relies on (as mentioned previously and as is well known to those of average skill in the art), Abelow mentions customers and brands while Ellard has no relevant teachings.
- 5) Claim 27 describes that developing the a model that identifies a net contribution of one or more elements of value to an organization share price value by a category of value further comprises: creating performance indicators for each element of value using at least a portion of the data, training models of historical and forecast data for one or more aspects of financial performance using said indicators to identify value driver candidates by element of value by enterprise, analyzing historical and forecast data for one or more aspects of financial performance using induction algorithms and said value driver candidates to identify value drivers and create element impact summaries by enterprise, and using said element impact summaries to quantify a contribution of each of one or more elements of value to an organization share price value by category of value by enterprise. Abelow and Ellard have no relevant teachings, Lyons teaches away:
  - a) by limiting data storage after external processing to data that appears in a report format (Lyons, C2, L46 – 50) – the calculation of element indicators requires raw and transformed data at each stage of processing; and
  - b) by limiting other programs to processing financial schedule data stored in the datastore (Lyons C20, L62 – C21, L2), as mentioned previously, the processing in the instant application requires the use of raw and transformed data, not financial schedule data, for every step of processing – these limitations (a and b) prevent the completion of any of the claimed processing – modifying Lyons to allow this type of processing would destroy its ability to complete its claimed function – as detailed below under Reason #2;
- 6) Claim 28 describes the optimization of values for specific elements of value which as mentioned previously and as is well known to those of average skill in the art are not included in



the financial statements and financial statement book values Lyons teaches and relies on. Abelow teaches away by teaching an exclusive focus on customers.

7) Claim 29 describes a contribution of an element of value to a category of value that is a net contribution of the element of value to the category of value and the other elements of value. Lyons teaches away by relying on financial statement book values. As is well known in the art, financial statement book values require separate and distinct identities.

8) Claim 31 describes the sources of data for specific elements of value which as mentioned previously and as is well known to those of average skill in the art are not included in the financial statements and financial statement book values Lyons teaches and relies on.

**Reason #2** - The second reason claim 25, claim 26, claim 27, claim 28, claim 29, claim 30, claim 31 and claim 32 are patentable is that the cited combination of documents would destroy the ability of the invention described by the Lyons and Ellard documents to function. It is well established that: *when a modification of a reference destroys the intent, purpose or function of an invention such a proposed modification is not proper and the prima facie cause of obviousness cannot be properly made (In re Gordon 733 F.2d 900, 221 U.S.PQ 1125 Fed Circuit 1984)*. Lyons teaches storage of data in accordance with patterns related to a SEPT value. The SEPT values are defined and controlled by end users (Lyons, C1, L 20 – C2, L 66) and enable four dimensional data analysis (Lyons C4, L 17 – 23). Ellard teaches away from this approach by teaching the integration of data at the item level in accordance with a centralized master index (Ellard, FIG. 1 and C2, L 40). If data were stored in accordance with a centralized master item index or a common schema as taught by the claimed invention, then the ability of the Lyons invention to use a SEPT value designed by the end user for data storage, four dimensional analysis and management would be destroyed. This would destroy the ability of the Lyons invention to complete its intended function of allowing end users to develop and disseminate reposts related to financial schedules (the “S” in SEPT is for schedule) using four dimensional data analysis. Because of this, the proposed combination is not proper and the prima facie case of obviousness cannot be made. Alternatively, requiring the Ellard invention to store data in accordance with a common schema or a SEPT value defined by end users would destroy the ability of the Ellard invention to store data in accordance with a master item index and complete its intended function of creating item indices (C2, L 40 – 50). As a result, the proposed combination is not proper and the prima facie case of obviousness cannot be made.

**Reason #3** - The third reason that the cited combination fails to establish a prima facie case of obviousness that would support the rejection of claim 25, claim 26, claim 27, claim 28, claim 29, claim 30, claim 31 and claim 32 is that the cited combination does not teach or suggest one or more limitations for any rejected claim. *MPEP 2143.03 provides that: to establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art (In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974))*. Limitations not taught or suggested by the cited combination include:

Claim 25. (also affects claims 26, claim 27, claim 29, claim 30, claim 31 and claim 32 directly). The cited combination does not teach or suggest:

- (a) integrating data from organization transaction databases in accordance with a common schema for an organization with one or more enterprises (Ellard teaches data integration in accordance with an item index, Lyons teaches integration using a plurality of SEPT values defined and controlled by a plurality of end users),
- (b) using at least a portion of the data to develop a model that identifies a net contribution of one or more elements of value to an organization share price by a category of value (Lyons has the ability to download stock and bond information but the elements and categories of value being analyzed are not included in the financial schedules Lyons is required to rely on and Lyons has limitations on data storage and processing that prevent the modifications that would support the required analysis),
- (c) using the data to develop one or more category of value models (the identified categories of value are not taught or suggested);
- (d) using the data to develop one or more market value models (none of the documents teach or suggests market value/share price models),
- (e) using the data to develop one or more network models (none of the documents teaches or suggests the use of data to develop network models),
- (f) using the data to develop one or more optimization models (none of the documents teach or suggests the use of data to develop optimization models),
- (g) using the data to develop a plurality of segmentation models (none of the documents teach or suggests the use of data to develop segmentation models, Abelow mentions that market segments exist and that techniques to identify them exist but does not teach or suggest any of them),
- (h) using the data to develop one or more value chain models (none of the documents teach or suggest using the data to develop a value chain model),
- (i) using the data to develop one or more lists of changes that will optimize one or more

aspects of organization financial performance (see (f) above); and/or

(j) a system for automated trading of an organization equity security based on a market sentiment value (none of the documents teach or suggest automated trading of an organization equity security).

Claim 26. The cited combination does not teach or suggest:

a) elements of value selected from the group consisting of alliances, brands, channels, employees, employee relationships, intellectual property, partnerships, processes, supply chains, vendors, vendor relationships and combinations thereof (Lyons teaches a reliance on financial statements, it is well known to those of average skill in the art that these financial statements exclude the listed elements of value).

Claim 27. (also affects claims 28 ). The cited combination does not teach or suggest:

(a) creating performance indicators for each element of value using at least a portion of the data,

(b) training models of historical and forecast data for one or more aspects of financial performance using said indicators to identify value driver candidates by element of value by enterprise,

(c) analyzing historical and forecast data for one or more aspects of financial performance using induction algorithms and said value driver candidates to identify value drivers and create element impact summaries by enterprise; and

(d) using said element impact summaries to quantify a contribution of each of one or more elements of value to an organization share price value by category of value by enterprise.

Claim 28. The cited combination does not teach or suggest:

a) where an aspect of financial performance is selected from the group consisting of alliance value, brand value, channel value, customer value, customer relationship value, employee value, employee relationship value, intellectual property value, partnership value, process value, supply chain value, vendor value, vendor relationship value and combinations thereof (most of these elements of value are excluded from the financial schedules Lyons relies on, Abelow teaches a different method for improving customer value).

Claim 29. The cited combination does not teach or suggest that a contribution of an element of value to a category of value is a net contribution of the element of value to the category of value and the other elements of value (Lyons teaches away by relying on asset book values).

Claim 30. The cited combination does not teach or suggest:

- a) identifying changes to one or more element value drivers that will optimize one or more aspects of organization financial performance (none of the applications mention value drivers),
- b) identifying the impact of value driver changes on one or more aspects of organization financial performance in an interactive manner (again no mention),
- c) reporting organization market and share price value by element of value (Lyons teaches away by focusing on book value), and/or
- d) identifying a price point for trading organization shares (again, no mention).

Claim 31. The cited combination does not teach or suggest: alliance management system databases, brand management system databases, business intelligence system databases, customer relationship management system databases, channel management system databases, estimating system databases, intellectual property management system databases, process management system databases, supply chain management system databases, vendor management system databases, operation management system databases, enterprise resource planning systems (ERP), material requirement planning systems (MRP), quality control system databases, sales management system databases, human resource system databases, accounts receivable system databases, accounts payable system databases, capital asset system databases, inventory system databases, invoicing system databases, payroll system databases, purchasing system databases, web site system databases, the Internet, external databases. (Lyons teaches and relies on financial statements which are produced by basic and advanced financial systems. Most of the systems listed above provide data regarding elements of value that are not found on the financial schedules Lyons relies on).

Claim 32. The cited combination does not teach or suggest that a transaction is any event that is logged or recorded.

**Reason #4** - The fourth reason claim 25, claim 26, claim 27, claim 28, claim 29, claim 30, claim 31 and claim 32 are patentable is the third reason listed under issue #2.

**Reason # 5** – The fifth reason claim 25, claim 26, claim 27, claim 28, claim 29, claim 30, claim 31 and claim 32 are patentable is the fifth reason listed under issue #2.

**Reason # 6** – The sixth reason claim 25, claim 26, claim 27, claim 28, claim 29, claim 30, claim 31 and claim 32 are patentable is that the combination of teachings described in the cited combination

would force a change the principle of operation of at least one of the inventions described in the cited documents. MPEP 2143.01 provides that when “*the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)*”. One of the changes in operating principle required to make the cited combination function is discussed below.

- Abelow teaches the development and use of a Customer Based Product Design (CBPD) System to identify the best method for managing new product sales and marketing. The claimed invention teaches the use of a detailed model of organization shareholder value to identify the best mode for managing all aspects of organization operations. Making a change to use a detailed model of organization shareholder value to identify the best method for managing new product sales and marketing would require a change in the principle of operation of the Abelow invention. Because a change in the principle of the operation of the Abelow invention is required to enable the cited combination to replicate the functionality of the claimed invention, the teachings of the documents are not sufficient to render the claims prima facie obvious.
- Lyons teaches storage of data in accordance with patterns related to a SEPT value while the claimed invention teaches integration in accordance with a common model or schema. Making a change to integrate data in accordance with a common model or schema would require the abandonment of the SEPT data storage principle upon which the Lyons invention is based. Because a change in the principle of the operation of the Lyons invention is required to enable the cited combination to replicate the functionality of the claimed invention, the teachings of the documents are not sufficient to render the claims prima facie obvious.

Summarizing the above, the Appellant respectfully submits that the Examiner has failed to produce the evidence required to establish a prima facie case of obviousness for a single claim. Taken together, these failures provide additional evidence that the claimed invention for producing concrete, tangible and useful results is new, novel and non-obvious. The claims are also patentable for the sixth reason listed under issue 2.

**Issue 2 – Whether claim 33, claim 34, claim 35, claim 36, claim 37, claim 38, claim 39 and claim 40 are patentable under 35 USC 103(a) over Ellard in view of Abelow and Lyons?**

In the January 9, 2008 Office Action for the above referenced application, claim 33, claim 34, claim 35, claim 36, claim 37, claim 38, claim 39 and claim 40 are rejected under §103(a) as being



obvious given Ellard in view of Abelow and Lyons. The Examiner has cited the Ellard, Abelow and Lyons documents as references. The Appellant respectfully traverses the rejections for obviousness in two ways. First, by noting that the rejections fail under both standards of the APA. Second, by noting that the argument used to support the claim rejections fails to establish a prima facie case of anticipation for the rejected claims. More specifically, the 9 January 2008 Office Action containing the claim rejections fails to establish a prima facie case of obviousness in a number of ways for every rejected claim as detailed below.

**Reason #1** - The first reason that the cited combination fails to establish a prima facie case of obviousness that would support the rejection of claim 33, claim 34, claim 35, claim 36, claim 37, claim 38, claim 39 and claim 40 is that the cited combination does not teach or suggest one or more limitations for every rejected claim. *MPEP 2143.03 provides that: to establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art (In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)).* Limitations not taught or suggested by the cited combination include:

Claim 33. (also affects claims 34, claim 35, claim 36, claim 37, claim 38, claim 39 and claim 40 directly). The cited combination does not teach or suggest:

- (a) integrating data from organization transaction databases in accordance with a common schema for an organization with one or more enterprises (already discussed as part of claim 25, reason #1 discussion under issue #1),
- (b) identifying a set of data records that are associated with each of one or more aspects of enterprise financial performance from said integrated data that can be used for training a plurality of cluster models for each aspect of enterprise financial performance (not taught or suggested by any of the cited documents),
- (c) generating a plurality of cluster models that identify a plurality of segments for each aspect of financial performance, by learning from at least a portion of the data (not taught or suggested by of the cited documents, Ellard teaches away by relying on an item index);
- (d) where said cluster models when taken together comprise an overall model for each aspect of financial performance (see answer for (c) above);
- (e) where the aspects of financial performance are selected from the group consisting of category of value, component of value, element of value, market value and combinations thereof (already discussed as part of claim 25, reason #1 discussion under issue #1).

Claim 34. The cited combination does not teach or suggest:



- (a) creating a plurality of performance indicators for each element of value using at least a portion of the data,
- (b) evolving a plurality of models of historical and forecast data for one or more aspects of financial performance using said indicators to learn which indicators are value driver candidates by enterprise,
- (c) evolving a plurality of induction models of historical and forecast data for one or more aspects of enterprise financial performance using said candidates to learn which indicators are value drivers while creating a plurality of element impact summaries from said value drivers, and
- (d) using said element impact summaries to identify a plurality of segments for each element of value with a clustering algorithm .

Claim 35. The cited combination does not teach or suggest where a contribution of each of one or more elements of value to a value of a business is segmented by a category of value where the categories of value are selected from the group consisting of current operation, real options, market sentiment and combinations thereof (Lyons teaches away as discussed previously in a number of places including the claim 25 discussion, Issue #1).

Claim 37. The cited combination does not teach or suggest wherein the method further comprises using a genetic algorithm to evolve a plurality of models (not taught or suggested by any of cited documents).

Claim 38. The cited combination does not teach or suggest: where learning from the data further comprises activities selected from the group consisting of identifying previously unknown value drivers, identifying previously unknown relationships between elements of value, identifying previously unknown relationships between element value drivers and combinations thereof (not taught or suggested by any of cited documents, Lyons teaches that the user is responsible for identifying relationships).

Claim 39. The cited combination does not teach or suggest: wherein an element of value is selected from the group consisting of alliances, brands, channels, customers, customer relationships, employees, employee relationships, equipment intellectual property, partnerships, processes, supply chains, vendors and vendor relationships and combinations thereof as already discussed in more detail under issue 1, reason #1.

Claim 40. The cited combination does not teach or suggest wherein a cluster model is developed using algorithms selected from the group consisting of "Kohonen" neural network,

K-nearest neighbor, Expectation Maximization and the segmental K-means algorithm.

**Reason #2** - The second reason claim 33, claim 34, claim 35, claim 36, claim 37, claim 38, claim 39 and claim 40 are patentable is the second reason listed under issue #1.

**Reason #3** – The third reason claim 33, claim 34, claim 35, claim 36, claim 37, claim 38, claim 39 and claim 40 are patentable is that the Examiner has not been able to explain the rationale for combining the Abelow, Ellard and Lyons teachings to replicate the functionality of the claimed invention. *The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting In re Kahn 41 stated that “[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness (KSR, 550 U.S. at 1, 82 USPQ2d at 1396).”* In particular, the Examiner has not explained why the master item index system taught by Ellard should be combined with the Lyons invention for four dimensional financial analysis and/or the Abelow invention for customer based produce design. Abelow teaches a Customer Based Product Design (CBPD) System that collects and disseminates feedback from customers to support the development of new products. The Appellant is not aware of any relevance of the Abelow invention to the claimed invention or any pending claims in the instant application.

**Reason #4** - The fourth reason claim 33, claim 34, claim 35, claim 36, claim 37, claim 38, claim 39 and claim 40 are patentable is the sixth reason listed under issue #1.

**Reason # 5** – The fifth reason claim 33, claim 34, claim 35, claim 36, claim 37, claim 38, claim 39 and claim 40 are patentable is that the combination of teachings described in the cited combination would force a change the principle of operation of at least one of the inventions described in the cited documents. MPEP 2143.01 provides that when “*the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)*”. Some of the changes in operating principle required to make the cited combination function is discussed below.

- Lyons teaches a reliance on financial statement book value while the claimed invention teaches the identification and use of the actual market value impact. Making a change to focus on the identification and use of the actual market value impact would require the abandonment of the financial statement book value principle upon which the Lyons

invention is based. Because a change in the principle of the operation of the Lyons invention are required to enable the cited combination to replicate the functionality of the claimed invention, the teachings of the documents are not sufficient to render the claims prima facie obvious.

- Ellard teaches integration of data in accordance with a master entity index (Ellard, FIG. 1 and C2, L 40) while the claimed invention teaches integration in accordance with a common model or schema. Making a change to integrate data in accordance with a common model or schema would require the abandonment of the master entity index principle upon which the Ellard invention is based. Because a change in the principle of the operation of the Ellard invention is required to enable the cited combination to replicate the functionality of the claimed invention, the teachings of the documents are not sufficient to render the claims prima facie obvious.

**Reason #6** - The sixth reason claim 33, claim 34, claim 35, claim 36, claim 37, claim 38, claim 39 and claim 40 are patentable is the fourth reason the claims are allowable is that arguments used to support the claim rejections are not in compliance with the requirements of the Administrative Procedures Act and are therefore moot. In *Dickinson v. Zurko*, 119 S. Ct. 1816, 50 USPQ2d 1930 (1999), the Supreme Court held that the appropriate standard of review of U.S.P.T.O. findings of fact are the standards set forth in the Administrative Procedure Act (“APA”) at 5 U.S.C. 706 (1994). The APA provides two standards for review – an arbitrary and capricious standard and a substantial evidence standard. The Supreme Court has defined substantial evidence as “substantial evidence is more than a mere scintilla. It means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. Mere uncorroborated hearsay or rumor does not constitute substantial evidence. Consolidated, 305 U.S. at 229-30 (citations omitted)”. The Appellant respectfully submits that the arguments presented by the Examiner fail to pass the substantial evidence test and the arbitrary and capricious test. Under the arbitrary and capricious test a reviewing court analyzes only whether a rational connection exists between the agency’s fact findings and its ultimate action, (see *Hyundai Elecs. Indus. Co. v. ITC*, 899 F.2d 1204, 1209, 14 USPQ2d 1396, 1400 (Fed. Cir. 1990). The Appellant notes that rejection of claim 33, claim 34, claim 35, claim 36, claim 37, claim 38, claim 39 and claim 40 for obviousness fails to pass the arbitrary and capricious test because the U.S.P.T.O. has previously found the identification of data clusters to be new, novel and non-obvious in patent 7,069,197 which matured from a later filed application and because it found the use of similar methods and models for data analysis to be new, novel and non-obvious in patents 7,272,617 and 7,283,982 which matured

from later filed applications.

Summarizing the above, the Appellant respectfully submits that the Examiner has failed to produce the evidence required to establish a prima facie case of obviousness for a single claim. Taken together, these failures provide additional evidence that the claimed invention for producing concrete, tangible and useful results is new, novel and non-obvious.

**Issue 3 – Whether the invention described in claim 25 and claim 33 represent patentable subject matter under 35 USC 101?**

In the January 9, 2008 Office Action for the above referenced application, Claim 25 is rejected as non-statutory for being abstract, lacking utility and including the words “integrating data” and “identifies” and Claim 33 is rejected as being non-statutory for being abstract, lacking utility and including the words “integrating data”, “identifying” and “generating”. The Assignee will respectfully traverse the §101 rejection of each claim by noting:

1. the Examiner has failed to establish a prima facie case of non-statutory subject matter for the rejected claims;
2. the claimed inventions produce results that are concrete, tangible and useful;
3. the claimed inventions physically transform transaction data into a different state or thing;
4. the arguments regarding the alleged non-statutory subject matter fail to comply with the requirements of the Administrative Procedures Act and are therefore moot.

**Reason #1** – As mentioned above, the first reason claim 25 and claim 33 are patentable is that the arguments presented by the Examiner fail to establish a prima facie case of non-statutory subject matter for the rejected claims. As noted in Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility *“the Examiner bears the initial burden ... of presenting a prima facie case of unpatentability.”* *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The Appellant notes that the Examiner has made a general statement to the effect that because the claims recite terms such as “integrating data”, “creating”, “generating” and “identifying” they are abstract. However, the Examiner has not provided any evidence to support an assertion that any of the claims taken as a whole are abstract and/or that any of the claims lack a specific utility. MPEP 2164.07 states *“the examiner has the initial burden of challenging an asserted utility. Only after the examiner has provided evidence showing that one of ordinary skill in the art would reasonably doubt the asserted utility does the burden shift to the applicant to provide rebuttal evidence sufficient to convince one of ordinary skill in the art of the invention’s asserted utility.”* *In re Brana*, 51 F.3d 1560, 1566, 34 USPQ2d 1436, 1441 (Fed. Cir.

1995) (citing *In re Bundy*, 642 F.2d 430, 433, 209 USPQ 48, 51 (CCPA 1981)). Given the complete absence of evidence to support these assertions, the Appellant respectfully submits that the Examiner has failed to establish the required prima facie cause of non-statutory subject matter for the rejected claims.

**Reason #2** – The second reason the claims are each patentable is that it is clear that – taken as a whole – the claimed inventions are: a method (claim 25) and an article of manufacture (claim 33) that produce results that are concrete, tangible and useful. In particular, the invention of claim 25 physically transforms data from disparate systems into an integrated database and then uses the data from this database to produce a contribution analysis of an organization share price and tools for improving shareholder value. In a similar manner, the invention of claim 33 physically transforms data from disparate systems into an integrated database and then uses the data from this database to produce clustering models that enable the detailed analysis and management of enterprise financial performance.

**Reason #3** – The third reason that the claims are patentable is that the claimed inventions represent a method (claim 25) and an article of manufacture (claim 33) for physically transforming transaction data into a different state or thing. As noted in the *Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility* “the Supreme Court noted that one example of a statutory “process” is where the process steps provide a transformation or reduction of an article to a different state or thing (*Diehr*, 450 U.S. at 183, 209 USPQ at 6). In *Alappat*, the Court held that “data, transformed by a machine” “to produce a smooth waveform display” “constituted a practical application of an abstract idea.” *State Street*, 149 F.3d at 1373. In *Arrhythmia*, the Court held “the transformation of electrocardiograph signals” “by a machine” “constituted a practical application of an abstract idea.” *Id.* Likewise, in *State Street*, the Court held that “the transformation of data” “by a machine” “into a final share price, constitutes a practical application of a mathematical algorithm.” *Id.* Thus, while *Diehr* involved the transformation of a tangible object – curing synthetic rubber – the Court also regards the transformation of intangible subject matter to similarly be eligible, so long as data or signals represent some real world activity. It is the Appellant’s understanding that the PTO views this “physical data transformation” test as an appropriate way to evaluate subject matter eligibility (see *In re Comiskey*, No. 2006- 1286). The second and third reasons taken together make it clear that the claimed inventions pass the physical data transformation test and are: a method (claim 25) and an article of manufacture (claim 33) that support practical applications with substantial, specific utility and are therefore statutory subject matter.



**Reason #4** – As stated previously, the fourth reason the claims are allowable is that the unsupported allegations used to support the claim rejections are not in compliance with the requirements of the Administrative Procedures Act and are therefore moot. The Appellant respectfully submits that the January 9, 2008 Office Action failed to provide even a scintilla of evidence to support the allegation of non-statutory subject matter it contains and that as a result it fails to meet the substantial evidence standard. The Appellant respectfully submits that the arguments presented by the Examiner also fail to pass the arbitrary and capricious test. The Appellant notes that rejection of claim 25 and claim 33 also fails to pass the arbitrary and capricious test because the Examiner has not completed any discernible fact finding that can be rationally or irrationally connected to the rejection contained of these claims and because the U.S.P.T.O. has previously found the same or similar subject matter to be statutory when presented in patent applications prepared by large companies. In particular the U.S.P.T.O. has found the identification of data clusters (as in claim 33) to be statutory subject matter in patent 7,069,197 and has found the use of data analysis models and methods similar those in claim 25 to be statutory when used in any domain in patent 7,283,982 and for data set analysis in patent 7,272,617. Second, a review of the U.S.P.T.O. database shows that the claims in roughly 7% of issued patents (over 450,000 patents) include one or more of the terms the Examiner has objected to (see pages 36 - 38, Evidence Appendix). The Appellant only makes the comparison shown above to illustrate the point that the above referenced application is not being reviewed under the same standard for subject matter eligibility that has been used for the review and allowance of other patent applications and that the rejections are therefore arbitrary and capricious.

**Issue 4 – Whether claim 25 and claim 33 are indefinite under 35 USC 112, second paragraph?**

In the January 9, 2008 Office Action for the above referenced application, claim 25 is rejected as indefinite for including the phrases “using at least a portion of said data” and “one or more aspects” and claim 33 is rejected as indefinite for including the phrases “using at least a portion of said data” and “one or more aspects”. The Assignee will respectfully traverse the §112 second paragraph rejection of each claim by noting: the arguments presented by the Examiner fail to establish a prima facie case that would support a written description rejection under 35 USC 112 second paragraph for a single claim and that the arguments the Examiner has used to support a written description rejection under 35 USC 112 second paragraph fail to comply with the requirements of the Administrative Procedures Act and are therefore moot.

**Reason #1** – The first way the Appellant will traverse the 35 U.S.C. §112 second paragraph rejection of claim 25 and claim 33 will be by noting that the arguments presented by the Examiner



in rejecting these claims fail to establish the prima facie case of indefiniteness required to sustain a §112 second paragraph rejection. *MPEP 2173.02 states that: definiteness of claim language must be analyzed, not in a vacuum, but in light of:*

*(A) The content of the particular application disclosure;*

*(B) The teachings of the prior art; and*

*(C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. In reviewing a claim for compliance with 35 U.S.C. 112, second paragraph, the examiner must consider the claim as a whole to determine whether the claim apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 U.S.C. 112, second paragraph, by providing clear warning to others as to what constitutes infringement of the patent. See, e.g., *Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 1379, 55 USPQ2d 1279, 1283 (Fed. Cir. 2000). See also *In re Larsen*, No. 01-1092 (Fed. Cir. May 9, 2001). In the case of claim 25, claim 33 and claim 57 the Examiner has failed to establish the prima facie case that the specification does not meet the requirements of §112 second paragraph in as many as five ways for every rejected claim. The five ways are:*

1a) by failing to interpret the claims in light of the specification – the specification clearly explains which portion of the data are used in processing:

a) the revenue, expense and capital expenditure history for the current operation and the real options for growth that are obtained from the basic financial system database (5) (described in several places including the first paragraph of page 29);

b) the revenue, expense and capital requirement forecasts for the current operation and the real options for growth that are obtained from an advanced financial planning system database (30) (described in several places including the first sentence in the second paragraph on page 18),

c) the market value data that are obtained from external databases (25) in a manner that is well known (described in several places including page 25); and

d) the elements of value related data that are selected by the induction algorithms after initial selection by a stepwise regression algorithm (see page 11 of this document for a summary, the specification and summary of claimed subject matter for details),

1b) by failing to interpret the claims in light of the specification – the specification makes it clear which aspects of financial performance are being analyzed and claims 28 and 33 specifically list them (see 4) below),

- 2) by failing to interpret the claims in light of the prior art – the prior art makes it clear that the meaning of the cited phrases is well known and that these phrases have been widely used by others without confusion (see pages 36 – 38 of the Evidence Appendix),
- 3) by failing to provide any evidence that someone of average skill in the relevant arts would have difficulty interpreting the claims – the office action did not contain declarations from anyone with average skill in the art of data processing or financial management,
- 4) by failing to establish that the limitation(s) in the claims fail to describe the invention – limitations associated with the allegedly confusing phrases are included in the claims (particularly in the case of aspects of financial performance – see claims 28 and 33),
- 5) by failing to consider the claim as a whole – the Examiner has cited a few phrases as the basis for the claim rejections and has not discussed either of the rejected claims as a whole.

**Reason #2** – As noted previously, the second way the Appellant will respectfully traverse the §112 second paragraph rejections of claim 25 and claim 33 is by noting that the assertions regarding the alleged indefiniteness of the claims are not in compliance with the requirements of the Administrative Procedures Act and are therefore moot. In *Dickinson v. Zurko*, 119 S. Ct. 1816, 50 USPQ2d 1930 (1999), the Supreme Court held that the appropriate standard of review of PTO findings are the standards set forth in the Administrative Procedure Act (“APA”) at 5 U.S.C. 706 (1994). The APA provides two standards for review – an arbitrary and capricious standard and a substantial evidence standard. The Appellant respectfully submits that discussion in the preceding paragraphs clearly shows that the instant Office Action fails to provide even a scintilla of evidence to support the allegation that the specification does not meet the requirements of §112 second paragraph and that as a result it fails to meet the substantial evidence standard. The Appellant respectfully submits that the §112 second paragraph rejections of claim 25 and claim 33 also fails to pass the arbitrary and capricious test because:

- a) the Examiner has not provided any evidence of relevant fact finding that can be connected to these rejections;
- b) there are several hundred patents that used the term “using at least a portion of the data” (see Evidence Appendix, pages 36, 37 and 38) indicating that the term is generally well understood and accepted; and
- c) the instant application provides the more detail regarding the portion of the data used in the processing than is provided in patent 7,283,982.

## 8. Conclusion

The Appellant also notes that with respect to the prosecution of the instant application, it appears that the U.S.P.T.O. has not fully complied with the requirements set forth in the APA, 35 USC 3 and 35 USC 131. Among other things, the Appellant specifically notes that:

- a) the Examiner refused to acknowledge the receipt of references from information disclosure statements submitted in accordance with the requirements of 37 CFR 1.97 several years ago;
- b) at least some of the claims appear to have been misclassified under class 705; and
- c) the prior art, subject matter eligibility and claims of the instant application appear to have been reviewed under a different standard than that used for the review and allowance of similar applications.
- d) the re-opening of prosecution for the above referenced application was a clear abuse of discretion as the newly cited documents had even less relevance than the documents cited previously.

Finally, as detailed above there is no evidence to support the art rejections and there is no evidence to support the non-art rejections of the pending claims. At the same time, evidence that supports the patentability of the rejected claims has been arbitrarily excluded or ignored. For these reasons and the extensive reasons detailed above, the Appellant respectfully but forcefully contends that each claim is patentable. Therefore, reversal of all rejections is courteously solicited.

Respectfully submitted,  
Asset Trust, Inc.

/B.J. Bennett/

B.J. Bennett, President,  
Dated: July 6, 2008

## 9. Claims Appendix

25. A finance method, comprising:

integrating data from organization transaction databases in accordance with a common schema for an organization with one or more enterprises; and  
using at least a portion of the data to develop a model that identifies a net contribution of one or more elements of value to an organization share price by a category of value and a plurality of tools for organization financial management selected from the group consisting of one or more category of value models, one or more component of value models, one or more market value models, one or more network models, one or more optimization models, a plurality of segmentation models, a plurality of simulation models, one or more value chain models, a plurality of management reports, one or more lists of changes that will optimize one or more aspects of organization financial performance; a system for automated trading of an organization equity security based on a market sentiment value and combinations thereof  
where the categories of value are current operation and a category of value selected from the group consisting of real options, market sentiment and combinations thereof.

26. The method of claim 25 where an element of value is selected from the group consisting of alliances, brands, channels, customers, customer relationships, employees, employee relationships, equipment intellectual property, partnerships, processes, supply chains, vendors and vendor relationships and combinations thereof.

27. The method of claim 25 where developing a model that identifies a net contribution of one or more elements of value to an organization share price value by a category of value further comprises:

creating performance indicators for each element of value using at least a portion of the data,  
training models of historical and forecast data for one or more aspects of financial performance using said indicators to identify value driver candidates by element of value by enterprise,  
analyzing historical and forecast data for one or more aspects of financial performance using induction algorithms and said value driver candidates to identify value drivers and create element impact summaries by enterprise, and  
using said element impact summaries to quantify a contribution of each of one or more elements of value to an organization share price value by category of value by enterprise.

28. The method of claim 27 where an aspect of financial performance is selected from the group consisting of revenue, expense, capital change, market value, alliance value, brand value, channel value, customer value, customer relationship value, employee value, employee relationship value, intellectual property value, partnership value, process value, supply chain value, vendor value, vendor relationship value and combinations thereof.

29. The method of claim 27 where a contribution of an element of value to a category of value is a net contribution of the element of value to the category of value and the other elements of value.

30. The method of claim 25 that further comprises using a model that identifies a net contribution of one or more elements of value to an organization share price by a category of value to complete activities selected from the group consisting of identifying changes to one or more element value drivers that will optimize one or more aspects of organization financial performance, identifying the impact of value driver changes on one or more aspects of organization financial performance in an interactive manner, reporting organization market and share price value by element of value, reporting organization market and share price value by category of value, identifying a price point for trading organization shares and combinations thereof.

31. The method of claim 25 where an organization transaction database is selected from the group consisting of advanced financial system databases, basic financial system databases, alliance management system databases, brand management system databases, business intelligence system databases, customer relationship management system databases, channel management system databases, estimating system databases, intellectual property management system databases, process management system databases, supply chain management system databases, vendor management system databases, operation management system databases, enterprise resource planning systems (ERP), material requirement planning systems (MRP), quality control system databases, sales management system databases, human resource system databases, accounts receivable system databases, accounts payable system databases, capital asset system databases, inventory system databases, invoicing system databases, payroll system databases, purchasing system databases, web site system databases, the Internet, external databases, user input and combinations thereof.

32. The method of claim 25 where a transaction is any event that is logged or recorded.

33. A computer readable medium having sequences of instructions stored therein, which when executed cause a processor in a computer to perform a learning method, comprising:

integrating data from organization transaction databases in accordance with a common schema for an organization with one or more enterprises;

identifying a set of data records that are associated with each of one or more aspects of enterprise financial performance from said integrated data that can be used for training a plurality of cluster models for each aspect of enterprise financial performance, and

generating a plurality of cluster models that identify a plurality of segments for each aspect of financial performance, by learning from at least a portion of the data

where said cluster models when taken together comprise an overall model for each aspect of financial performance, and

where the aspects of financial performance are selected from the group consisting of category of value, component of value, element of value, market value and combinations thereof.

34. The computer readable medium of claim 33, wherein identifying a plurality of segments for an element of value further comprises:

creating a plurality of performance indicators for each element of value using at least a portion of the data,

evolving a plurality of models of historical and forecast data for one or more aspects of financial performance using said indicators to learn which indicators are value driver candidates by enterprise,

evolving a plurality of induction models of historical and forecast data for one or more aspects of enterprise financial performance using said candidates to learn which indicators are value drivers while creating a plurality of element impact summaries from said value drivers, and

using said element impact summaries to identify a plurality of segments for each element of value with a clustering algorithm.

35. The computer readable medium of claim 34 where a contribution of each of one or more elements of value to a value of a business is segmented by a category of value where the categories of value are selected from the group consisting of current operation, real options, market sentiment and combinations thereof.

36. The computer readable medium of claim 33, wherein a component of value is selected from the group consisting of revenue, expense, capital change and combinations thereof.



37. The computer readable medium of claim 33, wherein the method further comprises using a genetic algorithm to evolve a plurality of models.

38. The computer readable medium of claim 33 where learning from the data further comprises activities selected from the group consisting of identifying previously unknown value drivers, identifying previously unknown relationships between elements of value, identifying previously unknown relationships between element value drivers and combinations thereof.

39. The computer readable medium of claim 33, wherein an element of value is selected from the group consisting of alliances, brands, channels, customers, customer relationships, employees, employee relationships, equipment intellectual property, partnerships, processes, supply chains, vendors and vendor relationships and combinations thereof.

40. The computer readable medium of claim 33, wherein a cluster model is developed using algorithms selected from the group consisting of "Kohonen" neural network, K-nearest neighbor, Expectation Maximization and the segmental K-means algorithm.

## **10. Evidence Appendix**

Page 35	excerpt from Warshavsky (6,675,350) received 9/13/2004
Page 36	list of patents using certain words received 5/25/2007
Pages 37 - 38	list of patents using certain words received 5/25/2007
Pages 39 - 41	declaration under Rule 132 first submitted April 20, 2008
Pages 42 - 45	declaration under Rule 132 first submitted April 10, 2008
Pages 46 - 48	declaration under Rule 132 first submitted April 10, 2008

(12) **United States Patent**  
**Warshavsky et al.**

**(10) Patent No.: US 6,732,095 B1**  
**(45) Date of Patent: May 4, 2004**

(54) **METHOD AND APPARATUS FOR MAPPING BETWEEN XML AND RELATIONAL REPRESENTATIONS**

(75) **Inventors:** Alex S. Warshavsky, San Francisco, CA (US); Chandrakant R. Bhavsar, Foster City, CA (US); Jeffrey M. Fischer, San Francisco, CA (US)

(73) Assignee: Siebel Systems, Inc., San Mateo, CA  
(US)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 13 days.

(21) Appl. No.: 09/835,162

(22) Filed: Apr. 13, 2001

(51) **Int. Cl.<sup>7</sup>** ..... **G06F 17/30**

(52) U.S. Cl. .... 707/5; 707/4

(58) **Field of Search** ..... 707/1, 2, 3, 4,  
707/10, 103, 202, 200, 104.1, 513, 100,  
101; 709/203, 229

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J. Kyrnin, "Meta Tags," [www.about.com/compute/html/cs/metatags/index.htm](http://www.about.com/compute/html/cs/metatags/index.htm), 3 pages.

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**“Meta Data Coalition,” [www.mdcinfo.com](http://www.mdcinfo.com), 2 pages.**

**“Open Information Model Proposed XML Document Type Definitions,” [www.mdcinfo.com/OIM/xmltdts.html](http://www.mdcinfo.com/OIM/xmltdts.html), 1 page.**

**“Competing Data Warehousing Standards To Merge In The  
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(List continued on next page.)

**Primary Examiner—Diane D. Mizrahi**

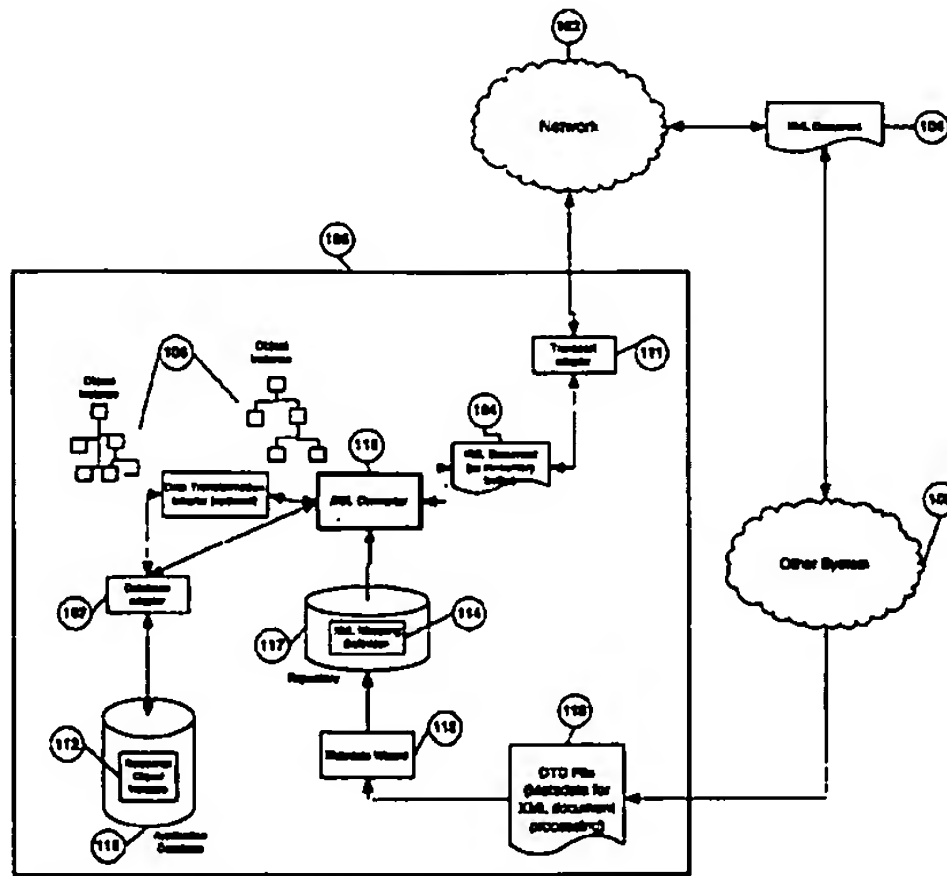
Assistant Examiner—Yicun Wu

(74) *Attorney, Agent, or Firm*—James W. Soong; Siebel Systems, Inc.

(57) **ABSTRACT**

**A method to convert data between a relational format and an XML document, by creating a set of XML Mapping Definition from metadata; selecting relational data from a relational application database, and converting the relational data to the XML document using the set of XML Mapping Definition.**

**19 Claims, 4 Drawing Sheets**



## USPTO PATENT FULL-TEXT AND IMAGE DATABASE

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PAT. NO.	Title
1 <a href="#">RE39,627</a>	<a href="#">T Device and method preventing ion source gases from entering reaction/collision cells in mass spectrometry</a>
2 <a href="#">7,219,369</a>	<a href="#">T Internal memory type tamper resistant microprocessor with secret protection function</a>
3 <a href="#">7,219,368</a>	<a href="#">T Robust visual passwords</a>
4 <a href="#">7,219,366</a>	<a href="#">T System and method for providing video services</a>
5 <a href="#">7,219,364</a>	<a href="#">T System and method for selectable semantic codec pairs for very low data-rate video transmission</a>
6 <a href="#">7,219,363</a>	<a href="#">T Device and method for processing broadcast program related information</a>
7 <a href="#">7,219,362</a>	<a href="#">T Packaging for limited lifetime optical data storage media</a>
8 <a href="#">7,219,352</a>	<a href="#">T Methods and apparatuses for facilitating processing of interlaced video images for progressive video displays</a>
9 <a href="#">7,219,351</a>	<a href="#">T Multi-view conversion system and method for exchanging communications between heterogeneous applications</a>
10 <a href="#">7,219,350</a>	<a href="#">T Dynamic server page meta-engines with data sharing for dynamic content and non-JSP segments rendered through other engines</a>
11 <a href="#">7,219,347</a>	<a href="#">T Resource scheduling</a>
12 <a href="#">7,219,345</a>	<a href="#">T System and method for terminating processes in a distributed computing system</a>
13 <a href="#">7,219,343</a>	<a href="#">T Firmware update mechanism in a multi-node data processing system</a>
14 <a href="#">7,219,342</a>	<a href="#">T Software-to-hardware compiler</a>
15 <a href="#">7,219,339</a>	<a href="#">T Method and apparatus for parsing and generating configuration commands for network devices using a grammar-based framework</a>

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"at least a portion of said data"

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## Patents

Patents 1 - 100 on "at least a portion of said data". (0.05 seconds)

### Game machine data transfer system utilizing portable data units

US Pat. 5179517 - Filed Sep 22, 1988 - Bally Manufacturing Corporation

The system of claim 20 wherein **at least a portion of said data** stored in said data memory is in encrypted form and wherein said processor includes means for ...

### Automated voice system for improving agent efficiency and improving service to parties on hold

US Pat. 5309505 - Filed May 20, 1991 - Inventions, Inc.

said call and sending **at least a portion of said data** for said party to said available agent; (G) if said request for automated handling is not provided ...

### Apparatus for processing modified NTSC television signals, with digital signals buried therewithin

US Pat. 5461426 - Filed Aug 20, 1993 - Samsung Electronics Co., Ltd.

... thereby to generate a modified half-symbol count; a first framestore memory included in said comb filter addressed by **at least a portion of said data** ...

### Communications system using a central controller to control at least one network and agent system

US Pat. 5546452 - Filed Mar 2, 1995 - GeoTel Communications Corp.

... to said IVR control signals generated in said controller for causing said IVR to transmit **at least a portion of said data** to said workgroup. 71. ...

### Implantable device having an electrolytic storage electrode

US Pat. 5312439 - Filed Dec 12, 1991

... means provides electrical may be modulated or encoded, as is commonly known energy for the operation of **at least a portion of said data** within the art, ...

### Computer-based communication system and method using metadata defining a control-structure

US Pat. 6345288 - Filed May 15, 2000 - OneName Corporation

... when executed, creating metadata when executed, causing **at least a portion of said data** to be which associates said communications object with at least ...

### Device security system

US Pat. 5748084 - Filed Nov 18, 1996

... controlling elements of said laptop access to **at least a portion of said data** files. computer to secure data stored therein, wherein said beacon 4. ...

### Document verification system

US Pat. 5475205 - Filed Jun 22, 1994 - Scientific Games Inc.

The system of claim 27 wherein said central computer additionally includes means for converting **at least a portion of said data** signal into said document ...

### Package for card with data-encoded strip and method of using same

US Pat. 5918909 - Filed Jul 16, 1997 - Barry Fiala, Inc.

... said first card being secured to said first panel so that **at least a portion of said data-encoded strip** is exposed and displaced remote from a portion ...

### System, method, and computer program product for creating subnotes linked to portions of data ...

US Pat. 6704730 - Filed Feb 5, 2001 - Avamar Technologies, Inc.

**at least a portion of said data** file. 9. The computing environment of claim 1 wherein said , , , . c . , , . , , list comprises a physically distributed ...

Apparatus for detecting human physiological and contextual information

US Pat. 7020508 - Filed Aug 22, 2002 - BodyMedia, Inc.

... said processing unit being adapted to generate 20 at least one of: (i) derived data from **at least a portion of said data** indicative of physiological ...

Endoscopic smart probe and method

US Pat. 6984205 - Filed Mar 8, 2002

... a digital processor having at least one algorithm running thereon adapted to process **at least a portion of said data** 5 of said second form; ...

Data recovery using targeted ECC correction

US Pat. 6084734 - Filed Dec 8, 1997 - Maxtor Corporation

The apparatus of claim 1, further comprising: means for realigning **at least a portion of said data** signal to a predetermined byte format when said ...

Method of and apparatus for generating a tree data structure supporting longest match lookup

US Pat. 6490592 - Filed Dec 30, 1999 - Nortel Networks Limited

... portion which defines the number 45 of bits in said prefix, **at least a portion of said data** structure being arranged substantially as a balanced tree; ...

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"at least a portion of said data"

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appl. No. : 10/743,616

Applicant : Jeff S. Eder

Filed : 22 December 2003

Art Unit :: 3692

Examiner : Jennifer Liversedge

Docket No. : AR - 61

Customer No. : 53787

**DECLARATION UNDER RULE 132**

I, Dr. Peter Brous, do hereby declare and say:

My home address is 17221 NE 8<sup>th</sup> Street, Bellevue, WA 98008. I have a B.S. degree in Finance from the University of Connecticut and a PhD in Finance from the University of Oregon.

I have worked in the finance field for 25 years, concentrating in the areas of corporate performance measures, business valuation, capital budgeting, and real option analysis. I have been a professor of finance at Albers School of Business and Economics at Seattle University for 15 years and was recently honored to hold the Dr. Khalil Dibee Endowed Chair.

I further declare that I do not have any direct affiliation with the application owner, Asset Reliance, Inc or its licensee Knacta, Inc. I met the inventor, the President of Knacta, Inc.,

for the first time on October 16, 2007. I understand that Knacta, Inc. has a license to the intellectual property associated with this application. I have had extremely brief discussion of this patent application and the article cited below with the inventor.

On October 25, 2007 I was given a copy of "How to sort out the premium drivers of post deal value", by Daniel Bielinski published in Mergers and Acquisitions in July of 1993. Until that time I had not read the article. However, I have read many articles on the subject of Value Based Management. I have a strong understanding of the concept and practice of Value Based Management and have been teaching this concept for over 10 years. I have studied the entire article and I am totally familiar with the language of the article with the scope thereof.

Based on my experience and education in the field of finance, I have concluded that the the Bielinski article and Value Based Management does not inherently describe or enable: the development of a computational model of enterprise market value by element of value and segment of value where the elements of value are selected from the group consisting of alliances, brands, channels, customers, customer relationships, employees, employee relationships, intellectual capital, intellectual property, partnerships, processes, production equipment, vendors and vendor relationships and the segments of value are selected from the group consisting of market sentiment, real option, derivative, excess financial asset.

There are several reasons for this:

1. As stated in the article VBM is similar to SVA. One of the ways it is similar is that it focuses on "value drivers" such as profit margin and growth instead of intangible assets as part of a tree based analysis of cash flow. Unlike SVA, VBM includes operational value drivers that drive the value drivers. However, these are generally not intangible elements of value. For example, Bielinski provides an example of breaking down profit margin by looking more closely at the cost of materials;
2. VBM is also similar to SVA in that it relies on the efficient market theory and this precludes the analysis of market sentiment;

3. SVA and VBM are tools that focus on the standard valuation model, a discounted cash flow model, that does not even consider the value associated with flexibility or decision making that is done sequentially and conditionally based on the arrival of new information. The valuation of this flexibility is the basis for valuation using real option analysis; and
4. Neither VBM or SVA address the valuation of derivatives.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patents issuing thereon.

Signed,



Dr. Peter Brous

Date: 10/31/2007

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/645,099

Applicant : Jeff S. Eder

Filed : August 21, 2003

Art Unit : 3692

Examiner : Clement Graham

Docket No. : AR - 55

Customer No. : 53787

DECLARATION UNDER RULE 132

I, Gregory Cusanza, do hereby declare and say: my home address is 8604 233rd Place NE, Redmond, WA 98053 and I have a B.S. degree in computer science from Cal Poly San Luis Obispo.

I have worked in the data processing field for 15 years, concentrating in the disciplines of data storage, data conversion and enterprise processing. I also have extensive knowledge of computer system administration, particularly for Windows-based, Linux, and Unix systems; I have been employed by a corporation that was recently purchased by EMC for 12 years, Knacta for 1.5 years and Kantrak, Inc. for the last month. I own 5% of the issued common stock in Kantrak, Inc.

I further declare that I do not have any direct affiliation with the application owner, Asset Reliance, Inc. I met the inventor for the first time in April 2004. I joined

Kantrak, Inc., a company run by the inventor in February of 2008. Kantrak, Inc. has a license to the intellectual property associated with this application.

On March 24, 2008 I was given a copy of U.S. Patent 5,991,758 for a System and method for indexing information about entities from different information sources by Scott Ellard and a copy of the 10/645,099 patent application. The Ellard patent was issued by the United States Patent Office on November 23, 1999. Until that time I had not read the patent or the patent application. I had previously read a copy of patent application 10/441,385 which is similar to the 10/645,099 specification. I have studied the entire specification of the Ellard invention and application 10/645,099 in order to closely analyze the claims and drawings. I am totally familiar with the language of the claims and conversant with the scope thereof. I completely understand the inventions as claimed.

Because the entities defined by Ellard correspond to items in the specification for application 10/645,099 I will use the term "item" to discuss the Ellard invention. For example, part numbers are items within the inventory financial asset and individual customers are items within the customer element of value (see page 19 of specification for 10/645,099).

Based on my experience and training in the field of data storage, data conversion and electronic data processing, I have concluded that the Ellard invention is not relevant to the claimed invention for a variety of reasons:

Ellard teaches that in order to define an item index it is necessary to complete several steps including eliminating duplicate item records, correcting mis-spellings and finding a way to distinguish between items with the same names. The user is given the option identifying the different records that identify the same item and/or the Ellard system can identify records that identify the same item using scoring. Furthermore, the Ellard invention uses a single index to link together all data from the same item.

The teachings of Ellard are not relevant to the invention described in application 10/645,099 because the primary analysis performed by the disclosed invention of application 10/645,099 (and all other Asset Reliance patent applications I am aware of)

is completed at the element level. As noted on page 44 and page 45 of the specification:

The software in block 303 retrieves data from the meta data mapping table (141) and the soft asset system table (148) and then assigns item variables, item performance indicators and composite variables to each element of value using a two step process.

For example, the element level analysis for customers incorporates all customer item data. Because of this, the fact that some records may have mis-spelled names and/or that the same customer is identified with different customer numbers is of no consequence. The same is true for the other elements of value.

Using the Ellard system for data consolidation would also destroy the ability of the claimed invention to function. The invention described in application 10/645,099 (and all other Asset Reliance patent applications I am aware of) relies on understanding the classification of the data associated with each item within a schema to complete the claimed processing. For example, a specific company could be a partner, a customer and a vendor. The data for the specific company would therefore be mapped to the partner element of value, the customer element of value and the vendor element of value. Data obtained from outside sources like the Internet and external databases is also classified before it is put in the database (see pages 37 through 39). I am not aware of any way to modify the Ellard invention to recognize the different classifications for the same item without destroying the ability of the Ellard invention to function.

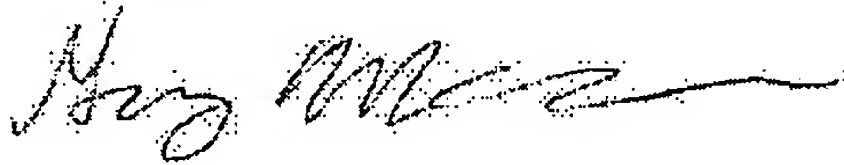
The Ellard invention also teaches away from the claimed invention as it utilizes user established criteria and scoring to identify items that are similar, link them together and then treats them like they are the same item. On the other hand, the claimed invention identifies subcategories of items that are similar within each classification by using clustering algorithms. The clustering algorithms learn the best way to segment the items from the data associated with each classification and then identifies the items as belonging to a segment. This analysis supports analysis at the sub-element level. As stated before, the Ellard invention does not allow for different classifications for the same item. It also does not recognize subcategories within each classification.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and that



these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patents issuing thereon.

Signed,

A handwritten signature in dark ink, appearing to read "Greg Cusanza", with a long horizontal flourish extending to the right.

Greg Cusanza

Date: 4-4-2008

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/441,385

Applicant: Jeff S. Eder

Filed : May 20, 2003

Art. Unit : 3692

Examiner : Clement Graham

Docket No. : AR - 53

Customer No. : 53787

DECLARATION UNDER RULE 132

I, Gregory M. Cusanza, do hereby declare and say:

My home address is 8604 233rd Place NE, Redmond, WA 98053; I have a B.S. degree in computer science from Cal Poly San Luis Obispo;

I have worked in the data processing field for 15 years, concentrating in the disciplines of data storage, data conversion and enterprise processing. I also have extensive knowledge of computer system administration, particularly for Windows-based, Linux, and Unix systems; I have been employed by a corporation that was recently purchased by EMC for 12 years and for Knacta for 1.5 years.

I further declare that I do not have any direct affiliation with the application owner, Asset Reliance, Inc. I met the inventor for the first time in April 2004. I joined Knacta, Inc., a company run by the inventor in April of 2006. I own a 5% share in Knacta, Inc. I have

never discussed the Lyons patent the instant application or any other patent application where Lyons is the basis for claim rejection with the inventor or anyone else. Knacta, Inc. has a license to the intellectual property associated with this application.

On August 30, 2007 I was given a copy of U.S. Patent 4,989,141 for a COMPUTER SYSTEM FOR FINANCIAL ANALYSES AND REPORTING issued by the United States Patent Office on January 29, 1991. Until that time I had not read the patent. I have studied the entire specification and drawings. I am completely familiar with the language of the claims and conversant with the scope thereof. I understand the invention as claimed.

Based on my experience and training in the field of data storage, data conversion and electronic data processing, I have concluded that the Lyons invention does/does not inherently describe or enable:

1) automated completion of multiple stages of processing with data storage between each stage.

The production phase of this applications operation is composed of multiple stages of processing but each stage requires user action and is therefore not automatic. The user is required to make choices as to which steps to perform next through the provided menu.

The only one of the user's options that performs multiple stages of processing is the system's BATCH command, however it only stores data in the form of a report at the end. The steps are fixed so there is no way to enable the storage of data in between each stage.

2) conversion and storage of data in a central database in accordance with xml schema or metadata standard.

No reference of XML anywhere in the patent and no standards are referenced which have been recognized by a known standards body or organization. In addition the format of the data in the database is a fixed format primarily based on the SEPT value and therefore not configurable by the user to adapt to other systems.

3) two or more independent components of software to process data integrated in accordance with a common metadata standard

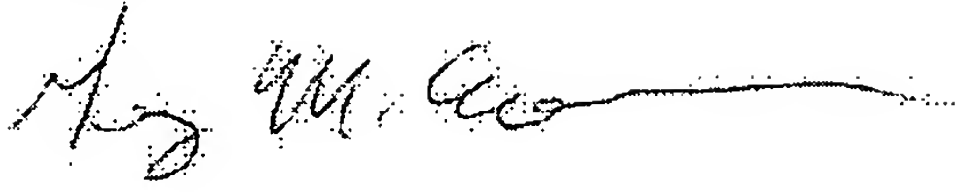
The Lyons invention describes a single application which can be run on multiple machines that must be connected to a central database. They are not able to run without the database being present so they are not independent in that respect. In addition the format of the data that is exchanged between the application and database is not described, therefore it can not be assumed that it follows a common metadata standard.

When communicating with external systems, the format of the data that is exchanged is not defined even when provided in a worksheet. In order to accommodate the varying input formats it is necessary to manually define an "input template". This template is used to convert the data from the external system into a format that the invention's database understands. If a common metadata standard were used then this input template would not be necessary. The template is in the form of a worksheet so it is not possible to adapt it to a metadata standard. This is true whether the data is obtained from the external system using the X-RUN command via the POP-UP and LINK commands or through the INPUT command.

This patent does not describe a public interface that would enable external systems to exchange data with this system. Because of this, the system as defined would have to adapt to each external system in a way that is unique to each system and not common among components.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patents issuing thereon.

Signed,

A handwritten signature in dark ink, appearing to read 'Greg M. Cusanza', followed by a long horizontal flourish.

Gregory M. Cusanza

Date: 11/13/2007

## **11. Related Proceedings Appendix**

09/761,671 – opinion appears to be based largely on an assumption that VBM is different than SVA in a number of areas where they are in fact the same (see pages 39 – 41 for details).



1 UNITED STATES PATENT AND TRADEMARK OFFICE

2  
3  
4 BEFORE THE BOARD OF PATENT APPEALS  
5 AND INTERFERENCES  
6

7  
8 *Ex parte* JEFFREY SCOTT EDER  
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10  
11 Appeal 2007-2745  
12 Application 09/761,671  
13 Technology Center 3600  
14

15  
16 Decided: August 29, 2007  
17

18  
19 Before TERRY J. OWENS, HUBERT C. LORIN, and ANTON W. FETTING,  
20 *Administrative Patent Judges.*  
21 FETTING, *Administrative Patent Judge.*

22 DECISION ON APPEAL  
23  
24  
25

26 STATEMENT OF CASE

27 Jeffrey Scott Eder (Appellant) seeks review under 35 U.S.C. § 134 of a Final  
28 rejection of claims 69-103, the only claims pending in the application on appeal.

29 We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6.

30  
31 We AFFIRM.  
32